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# James W. Nybakken: September 16, 1936 – June 20, 2009 An Appreciation

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A long-time member of AMU/AMS, President in 1986, and distinguished teacher, marine biologist, and researcher, James W. Nybakken (Fig. 1) died of leukemia June 20, 2009 at the age of 72.

Jim did his graduate work at the University of Wisconsin, completing his Ph.D. in 1965 with a dissertation on the ecology of Three Saints Bay on Kodiak Island, Alaska. Shortly after his study, an earthquake elevated much of the bay's intertidal zone several meters, and Jim's thesis, published by the University of Alaska (1969) provided invaluable baseline data to assess the ecological effects of the earthquake. In September 1965, Jim joined the faculty of California State University Hayward (now CSU East Bay). In January 1966, he began teaching at the CSU system's Moss Landing Marine Laboratories (MLML), where he was a member of the founding faculty and where he spent the rest of his career. He served as acting director of the Laboratories in the mid-1990s. "Throughout his tenure at MLML he witnessed the transformation of a small field station cobbled together in an old cannery building to a modern marine institution with an international reputation for excellence in marine science." (www.mlml.calstate.edu/announcements/news/6-24-09).

I first met Jim when he was a graduate student participating in a three-month International Indian Ocean Expedition (IIOE) cruise on the then Stanford University teaching and research vessel *Te Vega* in 1963. This ship facilitated inshore and coral reef studies in the western Indian Ocean, from Singapore through the Strait of Malacca and Malaysia to northern Thailand, and then through the islands off the south coast of Sumatra, ending rather ignominiously with an irrevocably broken drive shaft off Padang. The scientific personnel consisted of six faculty members and museum curators and six graduate students from diverse universities. Jim and I worked together on comparative ecology of the important reef-associated gastropod *Conus*, discovering in the process the most species-rich assemblages known at the time. Fig. 2 shows Jim, as well as Joe Rosewater, who also served as AMU president, in 1969, aboard the *Te Vega* during the IIOE cruise.

In 1968-69, Jim, together with his wife Bette and their two small sons, Kent and Scott, spent a year's leave of absence from MLML in Seattle, where Jim and I analyzed the field data from the IIOE cruise and worked on writing up the results. We were able to obtain ecological data on 48 species, and we found up to 27 of them on a single reef. Co-occurring *Conus* species typically specialize differentially on prey species, but those in more diverse assemblages proved not to be more specialized. Rather, they consumed a wider array of prey taxa, and they specialized more on different microhabitats than did those in habitats that support fewer species. We also demonstrated size-selective predation, that only the largest individuals of prey species may be large enough to repay foraging effort, and that *Conus* individuals shift their diets to larger prey species as they grow (Kohn and Nybakken 1975).

During that year, we also collaborated on the first scanning electron microscopic morphological study of the harpoon-like *Conus* radular tooth (Kohn *et al.* 1972), and Jim embarked on studies of the ecology and radular morphology of Eastern Pacific *Conus* (Nybakken 1970a, 1970b, 1971, 1979a, 1979b).

While Jim's biological interests were broad, most but not all of his research focused on molluscs. His other notable contribution to the biology of *Conus* was the first study ever made of ontogeny of radular teeth (Nybakken and Perron 1988,

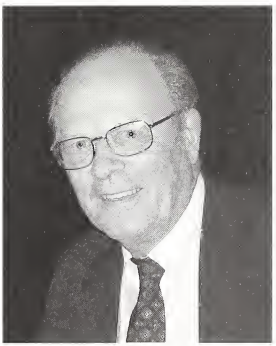

**Figure 1.** James W. Nybakken (1936-2009) in 2007.

**Figure 2.** Two future AMU presidents aboard *Te Vega* off Sumatra during the International Indian Ocean Expedition in December 1963. Left to right: Klaus Rützler (Smithsonian Institution), Jim Nybakken (AMU President, 1986), Joseph Rosewater (AMU President, 1969), and Llewellya Colinvaux (Ohio State University).

Nybakken 1990), and he honored the genus on his car's license plate (Fig. 3). He also carried out a number of studies of nudibranch ecology along the central California coast (*e.g.*, Nybakken 1978). In the 1990s, Jim turned his attention to the deep sea in a 2-year study of the ecology of communities at the base of the continental slope off California (Nybakken *et al.* 1998).

However, Jim is really best known for his five books, especially *Marine Biology: An Ecological Perspective*. This widely used text has gone through six editions, the first five

**Figure 3.** Jim Nybakken's personalized "CONUS" California license plate in place on his vehicle.

**Figure 4.** Upper figure: Alan Kohn's graduate students and visiting researchers at end-of-the year party, Edmonds, Washington in June 1969. Back row, left to right: Robert Kaufman, Richard Strathmann, Andrea Hammond, James Nybakken, Charles Galt, Margaret Lloyd, and Daniel Luchtel. Front row: Pamela Roe, Susanne Lawrenz Miller, Alan Kohn, and Sarah Ann Woodin. Lower figure: Seven from the upper group at retirement party, in the same positions as in upper figure. Denver, Colorado in January 1999.

self-authored and the most recent (2004) co-authored with Mark Bertness of Brown University. Jim's other books include *Diversity of the Invertebrates: A Laboratory Manual* (1996), *Guide to the Nudibranchs of California* (1980), and *Readings in Marine Ecology* (1986).

When Jim presided over AMU in 1986, he organized the Annual Meeting at Monterey. The last meeting he attended was the 2005 meeting at Asilomar, California.

Jim retired in 1998 but remained an active participant in MLML activities as well as pursuing his diverse recreational activities, including orchid culture—as a semi-professional with a 6-greenhouse nursery, wine making, Norwegian culture, and world travel.

In 1999, I was honored that Jim joined a party that my former students and associates arranged at the Society for

Integrative and Comparative Biology meeting in Denver on the occasion of my retirement. We took advantage of the occasion to place those who had also attended the 1969 laboratory group party at our home in the same positions for a photograph (Fig. 4). Clearly, we had not changed very much in 30 years!

Jim Nybakken will be greatly missed, but his legacy lives on in his dozens of scientific papers, his widely used books, the students he influenced during his career marked by educational leadership, and the students who have been and will be supported through the James W. Nybakken Scholarship administered by the Friends of Moss Landing Marine Laboratories (friends@mlml.calstate.edu).

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